

## A CORRELATION STUDY BETWEEN GRAMMATICAL COMPETENCE, VERBAL LINGUISTIC INTELLIGENCE, AND WRITING ABILITY

Tri Mulyaningsih\*, A. Dahlan Rais, Hefy Sulistyawati  
English Education Study Program  
Sebelas Maret University Surakarta

Email: [Y\\_nella@yahoo.co.id](mailto:Y_nella@yahoo.co.id)

**Abstract:** The study is intended to verify the correlation between grammatical competence and verbal linguistic intelligence toward writing ability of the fourth semester students of English Education of Teacher Training and Education Faculty of Sebelas Maret University in the Academic Year of 2011/2012, either partially or simultaneously. The method is correlational study which used documentation and test to collect the data. The population of this study was all the fourth semester Students of English Education of Teacher Training and Education Faculty of Sebelas Maret University in the academic year of 2011/ 2012. By using cluster random sampling, the writer took class B which consists of 30 students as the sample. The technique to analyze the data was Linear Regression Analysis Statistic by using SPSS 16. The result of the study shows that there is a positive correlation between grammatical competence and verbal linguistic intelligence toward writing ability, either partially or simultaneously. Both grammatical competence and verbal linguistic intelligence have contribution to writing ability. The positive correlation means that the increase or decrease of independent variables, grammatical competence and verbal linguistic intelligence, will be followed by the increase or decrease of dependent variable, writing ability.

**Key words:** grammatical competence, verbal linguistic intelligence, writing ability, linear regression analysis.

Language is an arbitrary vocal and visual symbols and gestures by which ideas and feelings are communicated to the others. Communication will be effective if people use the right language. Then, to find out correct and appropriate language used in communication, language has to be learned. Language learning is learning how to use language as communication through four skills that are listening, speaking, reading and writing.

Writing which is not gained from natural process like speaking and listening is a unique skill which needs special way to master it. It is very complex activity in which the writer has to put the ideas down on paper, transforms his thoughts into

words first, sharpens his main ideas and gives the structure and coherent organization. Brown (2000: 337) states to lead the written product, the writer goes through the process of prewriting, drafting, revising, and editing.

Then, to create a final writing well, there are some aspects which have to be considered. Many experts have defined those aspects. The most complete opinion about aspects of writing is defined by Genesee and Upshur (1997: 206). They state there are some important aspects in students' writing ability covering content, organization (cohesive, coherence, etc), vocabulary, grammar (language use/

tenses), and mechanics (punctuation, spelling, etc).

Then, in Oxford Advanced Learner's Dictionary (1995: 2) the term of ability is defined as skill or power to do something. Concisely, writing ability can be defined as the skill to put the ideas into good writing product using certain symbols which passes planning, writing, editing, revising, and re-writing step by considering the important aspects that are content, organization, vocabulary, grammar, and mechanics.

Grammar as one of the aspects which have to be owned to create a good writing has the important role in writing ability. It would be impossible to produce a good writing without having knowledge on grammar. Related to the writing ability, Murcia (2001: 233) states that grammar in writing will help writers to develop their knowledge of linguistic resources and grammatical systems to convey ideas meaningfully and appropriately to intended readers. The ability to apply grammatical rules of language in order to form grammatically correct sentences in appropriate context is called grammatical competence. Because of the important role of grammar in writing, grammatical competence belongs to one of the important things which have to be owned by the students.

Furthermore, expressing our ideas in writing form is also affected by human intelligence. The newest idea about intelligence is proposed by Howard Gardner who states each individual has at least eight intelligences that are combined in different manners. So each individual has a different intelligence profile which is a combination of all the intelligences. Each person has some strong intelligence (strengths) and some are not well developed (weakness). Those intelligences are verbal-linguistic, logical-mathematical,

spatial/visual, bodily/kinesthetic, musical, naturalist, interpersonal, and intrapersonal.

Verbal linguistic intelligence as one of the multiple intelligences plays an important part in language learning in which verbal linguistic intelligence is used when we speak to each other, whether through formal speech or informal conversation. We also use verbal linguistic intelligence when we put down our ideas on the paper, create poetry or simply write a letter to a friend. Verbal linguistic intelligence is the ability to use a language in spoken or written form to express what is on one's mind and to understand people. It means that the core ability to use language in the spoken or written form is affected by the level of verbal linguistic intelligence.

Considering the idea above, the writer was interested in carrying out a research about the correlation between grammatical competence, verbal linguistic intelligence, and writing ability. In order to know the correlation between them, the writer formulates the problems of research, whether there is any correlation between: (1) grammatical competence and writing ability, (2) verbal linguistic intelligence and writing ability, (3) grammatical competence, verbal linguistic intelligence simultaneously and writing ability of the fourth semester students of English education of Teacher Training and Education Faculty of Sebelas Maret University in the academic year of 2011/2012.

### ***Writing Ability***

Nunan (2003: 88) defines writing as the process of thinking to invent ideas, thinking about how to express into good writing, and arranging the ideas into statement and paragraph clearly. Furthermore, according to Elbow (in Brown, 2000: 336) writing process consists

of two steps process. First step is figure out your meaning or what you want to say, then the second step is put it into language by making a plan or outline first. It means writing is complex process which needs many steps lead to the “product”.

Writing is also the most different skill from the other skills which requires specialized aspects to create a good writing. Many experts have proposed those aspects. The most complete opinion about aspects of writing is defined by Genesee and Upshur (1997: 206). They state there are some important aspects to show students’ writing ability covering content, organization (cohesive, coherence, etc), vocabulary, grammar (language use or tenses), and mechanics (punctuation, spelling, etc).

Then, the term ability means the ability or skill to do something. It is similar with the definition of ability in Collins English Dictionary (2009) which defines Ability as the necessary skill, competence, or power to do something. Another similar definition comes from Macmillan Dictionary (2010) which defines ability as the level of skill that someone has in a particular job or activity. Someone can be called as a person who has ability whenever he or she is able to do his or her activity well because of a skill that they have.

Based on the theories about writing and ability above, it can be inferred that writing ability is the skill to put the ideas into good writing product using certain symbols which passes planning, writing, editing, revising, and re-writing step by considering some important aspects of writing including content, organization, grammar, vocabulary, and mechanics.

### ***Grammatical Competence***

Grammatical competence consists of two words. They are grammatical which derives from the word *grammar* and

*competence*. Initially, grammar emphasizes in combining words or phrase to produce sentences using some rules. Thornbury (2000: 2) defines grammar is conventionally seen as the study of the syntax (the arrangement of sentence) and morphology (how to arrange word). Now, definition of grammar is more comprehensive. Freeman (2003: 36) pointed out that grammar is one of three dimensions of language that are interconnected. Being able to use grammar structures does not only mean using the form accurately; it means using them meaningfully (semantics) and appropriately (pragmatic).

Based on the definition of grammar presented above, it can be inferred that the scope of grammar includes the vocabulary, word formation, sentence formation, spelling which is used meaningfully and appropriately. The scope of grammar as stated above is too large to be applied in this study. Therefore, the writer limits the scope of grammar based on the materials of structure 4 for fourth semester university students. According to Frank (1972) it consists of participial phrase, gerund phrase, infinitive phrase, absolute constructions, abstract noun phrase, and appositive constructions.

Then, the term of competence according to Oxford Advanced Learners Dictionary (1995: 232) means being able to do something well. Another similar definition about competence is defined by Savignon (1997: 8). She states competence as an underlying ability. In her opinion, competence can be observed, developed, maintained and evaluated only through performance.

From the theories presented above, it can be concluded that grammatical competence is proposed as person’s knowledge of the grammatical rules of

language including some scopes that are participial phrase, gerund phrase, infinitive phrase, absolute constructions, abstract noun phrase, and appositive constructions. It means that person who has grammatical competence will be able to apply those scopes of grammar in grammatically correct sentences form in appropriate context.

### ***Verbal Linguistic Intelligence***

Verbal linguistic intelligence includes one of the multiple intelligences. According to Gardner (2006: 7) linguistic intelligence is the sensitivity to the phonological features of a language. Then, Tek and Peng (2006: 2) state verbal linguistic intelligence is the capacity to use language (words), one's native language, and perhaps other language, effectively, either orally or in writing, to express what is on one's mind and to understand people. In verbal linguistic intelligence, there are some characteristics or capacities which have to be owned. These capacities are capacities to use language in the spoken and written form.

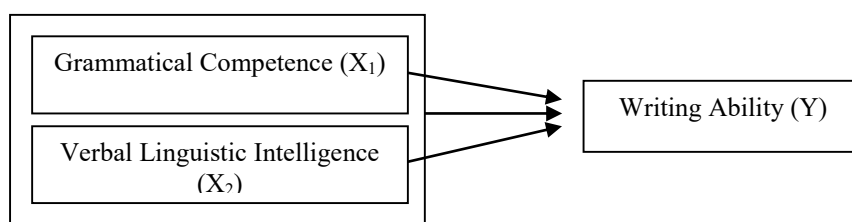
Related to this study which researches about students' writing ability, the writer limits the capacities of verbal linguistic

intelligence into the capacities to use language in the written form. These capacities involve letter, structure of word, vocabulary, grammar, and reading comprehension.

Finally, based on the theories above, it can be concluded that verbal linguistic intelligence is the ability to use a language in the written form including its capacities or aspects that are letter, structure of word, vocabulary, grammar, and reading comprehension.

## **RESEARCH METHOD**

The research method used in this study is a correlational method. Halonen and Santrock (1999: 20) state that correlational method is a method which has a goal to describe the strength of the relation between two or more events or characteristics. In this study, the writer examines the correlation between two variables. They are two independent variables (X), grammatical competence ( $X_1$ ) and verbal linguistic intelligence ( $X_2$ ); and one dependent variable (Y), writing ability. The relationship of those variables can be shown as follows:



**Figure 1. Relationships the Variables in Correlational Study**

Hence, the writer formulates three hypotheses stating that there is a positive correlation between: (1) grammatical competence and writing ability, (2) verbal linguistic intelligence and writing ability, and (3) grammatical competence, verbal linguistic intelligence simultaneously and writing ability.

This research was carried out at English Education Department of Teacher Training and Education Faculty of Sebelas Maret University in June and July 2012, which was conducted to the fourth semester students in the academic year of 2011/2012.

The sample of the study was 30 students taken by *cluster random sampling*.

The technique of collecting the data is documentation and tests. The documentation was used to collect the data of grammatical competence in the form of students' achievement of structure 4 lesson. Meanwhile, tests were used to collect the data of verbal linguistic intelligence (in the form of multiple choices which consists of 32 items) and writing ability in the form of essay test. Before the instruments were used, they had been tried out to find out the validity and reliability of the instruments.

The technique which was used to analyze the data was Linear Regression Analysis Statistic by using SPSS 16. Before testing the hypothesis using linear

regression analysis, it is necessary to do prerequisite test. They were normality test using Lilliefors Test and linearity test using Anova Test. Afterward, the writer tested the hypothesis using Product Moment and Multiple Linear regression formula. Product Moment was used to find out the strength of relationship between two variables, while Multiple Linear Regression was used to find out the strength between several independent variables and one dependent variable.

## RESULT AND DISCUSSION

The results of data computation by using SPSS 16 can be described as follows:

Table 1. The Result of Normality Test

Variable	P value	Significance Level (5%)	Decision
Grammatical Competence	0.963	0.05	Normal
Verbal Linguistic	0.273	0.05	Normal
Intelligence	0.854	0.05	Normal
Writing Ability			

From the table above, it can be concluded that all the data of the research variables are in

normal distribution since the p value is greater than 0.05.

Table 2. The Result of Linearity Test

Pre requirement test	Variable	The result of computation (sig. value)	Criteria	Decision (H <sub>0</sub> )	Explanation
Linearity test	X <sub>1</sub> Y	0.590	>0.05	Accepted	The data is linear
	X <sub>2</sub> Y	0.884	>0.05	Accepted	The data is linear

From the table above, it can be seen that all the data of the research variables are linear since the sig. value is greater than 0.05.

Table 3. The Result of Hypothesis Test

Hypothesis	R	R <sup>2</sup>	R-table	t	t-table	F	F-table	Conclusion
1 <sup>st</sup>	0.553	0.306	0.361	3.516	1.7	-	-	H <sub>0</sub> is rejected
2 <sup>nd</sup>	0.522	0.272	0.361	3.235	1.7	-	-	H <sub>0</sub> is rejected

3 <sup>rd</sup>	0.611	0.374	0.361	-	-	8.061	3.35	H <sub>0</sub> is rejected
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The first hypothesis says that there is a positive correlation between grammatical competence ( $X_1$ ) and writing ability ( $Y$ ). From the table above, it can be seen that  $r_o = 0.553$  is greater than  $r_t$  (0.361). Since  $r_o > r_t$ , it means that the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. In other words, it can be said that there is a positive correlation between grammatical competence ( $X_1$ ) and writing ability ( $Y$ ). Then, the value of t-obtained (3.516) which is greater than t-table (1.70) shows that the correlation is significant. Afterward, the equation of simple linear regression can be formulated as follows:  $\hat{Y} = 19.394 + 0.696X_1$ .

Based on the result above, it is believed that grammatical competence gives contribution to writing ability. This result deals with the grammatical competence as one aspect which has to be owned in writing ability. As stated by Williams (2003: 179) who states that with a conscious knowledge of grammar and the requisite vocabulary, students will be able to recognize grammar and usage errors in their own writing and repair them. Furthermore, Murcia (2001: 233) also states that grammar in writing will help writers to develop their knowledge of linguistic resources and grammatical systems to convey ideas meaningfully and appropriately to intended readers.

In this study, the contribution of students' grammatical competence to writing ability is showed by the appropriateness of using the grammatical competence scope, participial phrase, gerund phrase, infinitive phrase, absolute construction, abstract noun phrase, and appositive construction, in their writing test

result. The participial phrase, gerund phrase, infinitive phrase, and appositive constructions are the patterns which are obtained in the students' writing test result. The students can apply them in their writing well. For example: *An evil crime **named** corruption leads to poverty* (the participial phrase), ***having teacher certification** is the dream for every teacher* (the gerund phrase), *there should be a way **to stop** it* (infinitive phrase), *corruption, **a huge problem**, in Indonesia is always interesting to be discussed* (the appositive construction). In the other hand, absolute construction and abstract noun phrase which does not occur as often as the other verbal constructions do not appear in their writing test.

Based on the result of computation and the application of grammatical competence scope in students' writing, it can be concluded that there is a positive correlation between grammatical competence and writing ability. It means students' grammatical competence gives certain contribution to their writing ability and the increasing or decreasing of students' grammatical competence will be followed by their writing ability.

The second hypothesis says that there is a positive correlation between verbal linguistic intelligence ( $X_2$ ) and writing ability ( $Y$ ). From the table above, it can be seen that  $r_o = 0.522$  is greater than  $r_t$  (0.361). Since  $r_o > r_t$ , it means that the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. In other words, it can be said that there is a positive correlation between verbal linguistic intelligence ( $X_2$ ) and writing ability ( $Y$ ). Then, the value of t-obtained (3.235) which is greater than t-table (1.70)

shows that the correlation is significant. Afterward, the equation of simple linear regression can be formulated as follows  $\hat{Y} = 50.610 + 0.312X_2$ .

Based on the result above, it is believed that verbal linguistic intelligence gives contribution to writing ability. It deals with verbal linguistic intelligence as the core ability to use language in written form. As stated by Harbi (2005: 3), someone who has strong verbal linguistic intelligence is he/she has highly developed skills for reading, speaking, listening, writing and tends to think in words. Furthermore, Ahmadian and Hoseeini (2012: 118) investigate possible the relationship between language learners' multiple intelligence (MI) and their writing performance. The results of regression analysis showed that among all eight intelligences, linguistic intelligence is the best predictor of writing performance. Then, Sarani, Abdullah, Keshavarz, Atefeh, and Zamanpour, Enayatollah (2012) also investigate the relationship between MI sub-scales and students' EFL narrative writing composition including the writing components. The result of the research indicates that almost all of MI sub-scale has negative relationship with narrative writing composition. The positive relationship is only between narrative writing composition and verbal linguistic intelligence.

In this study, the contribution of students' verbal linguistic intelligence to writing ability is showed by aspects of verbal linguistic intelligence; letter, structure of word, vocabulary, grammar, and reading comprehension, which is implemented in students' writing. The example of this implementation is taken from one of the students who reach the highest score of writing ability and the second highest score of verbal linguistic intelligence. The explanation is as follows:

(1) in the aspect of letter, the student can recognize the letter and rearrange the English word quite well in her writing. Almost all of the English word is written appropriately but the word *health* that is written **heath**, (2) in the aspect of structure of word, the student use suffixes and prefixes in English word appropriately. There is no misused of suffixes and prefixes in English word in her writing, (3) in the aspect of vocabulary, the student can choose the word which is the appropriate with the topic given, (4) in the aspect of grammar, the student can rearrange the simple or complex sentence. Besides, there is a little grammatical errors that is found in her writing, (5) in the aspect of reading comprehension, the student's writing shows that she has read more about corruption in Indonesia.

Based on the result of computation and the application of verbal linguistic intelligence aspect in students' writing, it can be concluded that there is a positive correlation between verbal linguistic intelligence and writing ability. It means that students' verbal linguistic intelligence gives certain contribution to their writing ability and the improvement of students' verbal linguistic intelligence will be followed by their writing ability.

The third hypothesis says that there is a positive correlation between grammatical competence ( $X_1$ ), verbal linguistic intelligence ( $X_2$ ) simultaneously and writing ability ( $Y$ ). From the table above, it can be seen that  $r_o = 0.611$  is greater than  $r_t$  (0.361). Since  $r_o > r_t$ , it means that the null hypothesis ( $H_o$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. In other words, it can be said that there is a positive correlation between grammatical competence ( $X_1$ ), verbal linguistic intelligence ( $X_2$ ) simultaneously and writing ability ( $Y$ ). Then, the value of

F-obtained (8.061) which is greater than t-table (3.35) shows that the correlation is significant.

Based on the result above, it is believed that grammatical competence and verbal linguistic intelligence give contribution to writing ability. It deals with the role of grammar as the important aspect in writing ability and the role of verbal linguistic intelligence as the core ability to use language in the written form. As stated by Williams (2003), Manser (2006), and Murcia's (2003), grammar is one of the fundamental aspects that should be considered in writing process. Then, Ahmadian, Hoseeini, and Sarani et al (2012) who investigate possibility relationship between language learners' multiple intelligence (MI) and their writing performance found that the correlation between MI and their writing performance exists, and the positive relationship is only between writing performance and verbal linguistic intelligence.

Afterward, the equation of multiple linear regression can be formulated as follows  $\hat{Y} = 23.792 + 0.481X_1 + 0.186 X_2$ . The computation of regression is aimed to predict the correlation between variables and to identify which one of the two has more contribution than the whole. It is also approved by the relative contribution (RC) and the effective contribution (EC) of each variable which has different strength. The relative contribution of grammatical competence ( $X_1$ ) to writing ability is 56.6%, while that of verbal linguistic intelligence ( $X_2$ ) to writing ability is 43.4%. Meanwhile, the effective contribution of grammatical competence ( $X_1$ ) to writing ability (Y) is 21.17%, while that of verbal linguistic intelligence ( $X_2$ ) to writing ability (Y) is 16.23%. Then, the total of effective contribution of grammatical competence ( $X_1$ ) and verbal linguistic intelligence ( $X_2$ )

to writing ability (Y) is 37.4%. It means that grammatical competence and verbal linguistic intelligence affect the students' writing ability as much as 37.4 % and the other factors such as the knowledge of organization text, motivation, the other intelligences, culture, etc affect students' writing ability as much as 62.6%.

In this study, the contribution of students' grammatical competence and verbal linguistic intelligence to their writing can be seen from those variables score of one of the students. One of the students gets the higher score for grammatical competence and writing ability, while she gets the second high score for verbal linguistic intelligence. Furthermore, from her writing, it also proves that she can apply grammatical competence and verbal linguistic intelligence aspects quite well.

From the explanation above, it is concluded that grammatical competence and verbal linguistic intelligence have a relation to writing ability so that in certain level they give certain contribution. Then, since the correlation between grammatical competence, verbal linguistic intelligence simultaneously and writing ability is positive, it can be concluded that increasing or decreasing of students' grammatical competence and students' verbal linguistic intelligence will be followed by their writing ability.

## CONCLUSION

Based on the results of the study, it can be concluded that there is a positive correlation between: (1) grammatical competence and writing ability, (2) verbal linguistic intelligence and writing ability, and (3) grammatical competence, verbal linguistic intelligence simultaneously and writing ability of the fourth semester students of English Education of Teacher Training and Education Faculty of Sebelas



Maret University in the academic year of 2011/ 2012. It indicates the increase or decrease of students' grammatical competence and students' verbal linguistic intelligence will be followed by their writing ability.

## SUGGESTIONS

Considering that grammatical competence and verbal linguistic intelligence give contribution to writing ability, it is useful for the teacher to be creative in creating more enjoyable writing class by confidently trying to utilize grammar and verbal linguistic intelligence activities such as journal/ diary writing, publishing, poetry, games, etc. Furthermore, the teacher should also consider that grammatical competence and verbal linguistic intelligence can be improved through learning process. So hopefully, the teacher provides English language learners of lower levels of grammatical competence and verbal linguistic intelligence with further assistance and support to perform more linguistic tasks so that they can better improve their writing ability.

Then, the students themselves should practice the activities which are related to grammatical competence and verbal linguistic intelligence in their daily life to improve their writing ability.

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